Soils, Crops and Fertilizers

CONDUCTED BY B. W. KILGORE,
State Chemist North Carolina Department of Agriculture and Director Agricultural Experiment Station.

Inquiries of Progressive Farmer readers cheerfully answered.

PLOWING—THE MOST IMPORTANT OF ALL FARM WORK.

Begin Plowing at Six-Inch Depth, and Gradually Increase to Eight or Ten, Says Dr. Freeman—Use a Two-Horse Plow.

Editors Progressive Farmer:

It is a little strange that at this day and time one should think it worth his while to write about plowing, and especially to farmers.

But do farmers, as a class, know much about plowing ? I risk the statement that very few farmers do. The plowing is by far the most important and far-reaching work on the farm. It is by plowing we make the soil. On making the sail and keeping it in a proper mechanical condition depends our success or failure as farmers. More farmers have failed at this point than at any other.

For a child or any other animal to grow, it must have a stomach which can digest the food and put it in such a condition as to enable the proper organs to take up and assimilate it. This is true of plant life. The stomach or soil must be in the right condition to digest the food and put it in and hold it in the condition for the plants to feed on. The plant has to have all its food in liquod form before it can assimilate it. The little rootlets run out into the soil and drink up the liquid food, if it is there; if not there, the plants fail to get food and it stands there and suffers for the want of food.

Now, the point is to make and keep the soil in the best condition to keep this liquid food ready for the plant to feed on at all times during the plant's growing life. If the plant has no liquid food present, its life is cut short and a short crop is the result.

Deep plowing and plenty of decomposing matter are the leading factors in producing this stomach or soil.

How deep? Six inches is the depth to begin to plow in all this section. The cow pea and lying out are the best ways to get the decomposing matter.

Now let every farmer begin this winter to break his land six inches deep. Next year go seven inches deep, and so on, until you have made your soil eight or ten inches. This depth of soil and enough humus with light cultivation, will keep your plants supplied with food the year round.

I began two years ago, on a field of heavy sandy loam, to plow six inches deep with two-horse plow. Last year plowed same seven inches. This land was plowed early as I could in spring. At planting time I ran two-horse harrow over it, and then planted with planter. Cultivated with cotton plows lightly, used no fertilizer. The first year the crop was very much increased, and last year the crop was nearly doubled. I shall plow the same field eight inches this year. I have the plowman to have a measure in his pocket at all time, and there is no mistake about the debth of the plow. I have had corn and peas on this land for several years. This was the best corn I ever made.

All land should be plowed with two horse plows, and where one has only one horse, he should arrange with his neighbor who has only one horse, to plow their lands together with two horse plows. I asked a farmer the other day what he put under his corn, as it looked very fine and far better than other corn near by and on the same soil. His answer was: "Nothing, but I broke it with two-horse plow."

If your land is broken only two or three inches deep, the first rain that comes washes out what little plant food it has, and your plant suffers. Also if the drouth holds on for two or three weeks, the liquid food is dried up and the plant stands there starving, while you wish and pray for rain. Now if you had put your land, or plant stomach, in a good mechanical condition, so it could hold liquid plant food under either of the above conditions, you would have had no occasion to complain or feel any uneasiness. Your crop would have been a good one.

Deep plowing, eight or ten inches, and plenty of humus will never fail to give you a paying crop.

H. F. FREEMAN, M. D.

Wilson Co., N. C.

Fertilizer-Home Mixing.

Editors Progressive Farmer:

With the information coming from Experiment Stations in regard to mixing chemicals for fertilizer—giving different formulas for different crops, the farmer should be greatly encouraged, and should intelligently use this information to his benefit. However, if we are to be benefited, there are many things that we should carefully study. First and foremost, we must have a high grade of chemicals—pure and unadulterated. And where to buy them is a matter of deep concern. Our experience in this matter will probably do some one good.

For several years we bought chemicals from guano companies, which would invariably be resacked. We have repeatedly asked for the chemicals to be sent in original bags, potash containing 224 pounds bearing a lead seal and nitrate of soda containing 305 pounds, the one mined at Stassfurt, Germany, the other in the rainless regions of South America. We soon found we were not getting the genuine goods. The guano companies discourage home mixing, as it is a clear loss of about $7.50 per ton to them. A good sand sieve is a great benefit in the process of mixing chemicals. One time going through a sieve will mix it more tha nthree times going over with a shovel or hoe.

For potatoes and some other vegetables we use the following formula: Nitrate soda 100 pounds, which gives about 1 per cent to a ton of amonia; 600 pounds cotton-seed meal, which adds 2½ per cent more of amonia; 300 pounds muriate potash, which will add 7½ per cent potash; and 1,000 pounds, 14 per cent acid phosphate, which give 7 per cent phosphorus. This makes a ton of high-grade guano, worth on the market $32.50 per ton, and made at a cost of $25.50. Near the seaboard would not cost quite so much.

We see this is a neat saving to begin with, but simply knowing how to mix and distribute fertilizer does not bring success to the farmer. We are using every means possible in our reach to improve our land. Plowing deep and subsoiling, making and buying all the manure we can, sowing peas for summer and rye for winter improvement; shallow and frequent cultivation during the growing season will greatly increase the fertility of our soil and increase the crops materially.

The most we ever realiged from land was when it was worked 11 times before any seed was planted.

We grew a lot of fine second-crop potatoes last fall, with very little rain. Our potatoes were cultivated shallow and often. These will be offered for sale soon, and will bring $1.25 to $1.50 per bushel. Work done at the right time pays wonderfully well.

W. L. KIVETT.

Guilford Co., N. C.

Pitching Crops.

Editors Progressive Farmer

The subject that I have chosen for a short letter to your esteemed paper, although one on which we farmers receive a great deal of gratuitous advice, is a very important one.

On the threshold of a new year, is a good time to take our bearings, to see where we are, whither we are drifting; whether we are building on a solid foundation or on the sand. Let us face the facts squarely, and see if we have not made some mistakes, during the past. Are we each year steadily advancing, in finances, in home comforts and surroundings, in inclination and ability, to educate our children, and do good to our fellowman? If we cannot answer these question in the affirmative, it behooves us to seriously consider the pitching of our crops for the present year.

Perhaps we have been planting too largely of our money crop, cotton, tobacco, or whatever that crop may be. May be we are in debt, and have been trying to get square with the world by risking everything on our money crop, intending to change as soon as we are out of debt.

Let us seriously consider if it would not be wise to arrange our indebtedness so that we could make smaller but surer payments, and get our farming on a safer basis. We all know the risk of the one-crop system. A large proportion of the cotton and tobacco farmers are exhausting their lands by a succession of these crops. There are lots of fields in my county that have been planted continuously in cotton for ten, twenty, and some even for forty years. Now we all know that this is not good farming. So then let us plan pitching of our crops this year, not only to provide an abundant supply of provisions, but to arrange to establish a system of rotation that will permanentlly build up our lands.

The recent high price of cotton makes it specially tempting to plant largely of this crop the present season, but we should consider the expensiveness of the crop, and the uncertainty of the price, and the feeling of independence and satisfaction that comes from well filled barns and cribs. I have just built a large barn in order to be able to raise more grain and hay.

My neighbors will not increase their cotton crop this year, but will increase their hay crop. The wheat and out crops have improved in appearance recently. Will close with three cheers for The Progressive Farmer.

Very respectfully,

JOHN M. DOWELL.

Charlotte, N. C., Route 3.

Test All Kinds of Seeds.

We have from time to time urged our readers not to be so foolish as to plant seed corn this year without knowing how much of it will grow. No matter how well the seed corn has been kept, no matter how favorable the circumstances may be under which it is planted, no man should ever think of planting or sowing any kind of seed without first ascertaining the per cent of it that will grow as far as possible under ordinary farm conditions. It is so easily done that there is no excuse for a man who has a short crop because he failed to test his seed.

Take a common cigar box, place in the bottom of it a piece of common newspaper thoroughly wet, count your seeds and put them in, fold a wet paper over them, close the lid of the box, tie a string around it, and set it on the mantle or behind the kitchen stove, or anywhere that it will secure sixty degrees of heat. If it gets a little lower than that at night it makes the conditions more like those of the field. On the fourth day count your seeds and see how many have two sprouts, one for the top, the other for the root; then count again on the sixth and seventh days, and you will not be long in ascertaining the value of your corn for seed.

Apply this same principle to every other kind of seed you grow—clover, timothy, blue grass, oats, wheat, rye, barley—and then you may know the kind of seed you have and what allowance to make for defects in germination.—Wallace's Farmer.

The only greatness is unselfishness love. * * * There is a great difference between trying to please and giving pleasure.—Henry Drummond.